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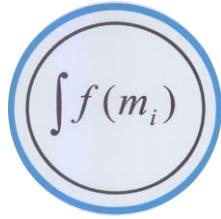
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Institute of Mathematics and Management (IMM)

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Opening Keynote Speaker



Dr. (Mrs).W.G. Samanthi Konarasinghe
Institute of Mathematics and Management, Sri Lanka
Topic: Scientific Forecasting on Economic Policy Development

Dr. (Mrs.) W. G. Samanthi Konarasinghe, an award-winning Scientist has served as a Statistical Consultant and a Lecturer for more than two decades. She has developed various Mathematical and Statistical Techniques for the world. They are Circular Model; Circular indicator; Coefficient of Stability; Sama Circular Model; Sama Circular Indicator. Among them, the “Sama Circular Model” is highly valued and applied in various fields. She was awarded the prestigious “IMRF Best Scientist Award” from India for valuing her contribution to the field of Statistics. Most of the real-life data follow irregular wave-like patterns; hence it is difficult to forecast them. For example; share market prices, tourist arrivals, consumer price index, unemployment, blood glucose level of a person, the water level of a river, air temperature, etc. are associated with high volatility, making them difficult to forecast. The Decomposition Techniques and Auto- Regressive Integrated Moving Average (ARIMA) were the most used techniques for the purpose. However, the Sama Circular Model was superior to them in many real-life applications, making her finding unique. Dr. Samanthi is in constant demand for International Research Conferences. She has been a; keynote speaker, invited speaker, guest lecturer, guest of honor, and chief guest in Thailand, Malaysia, Singapore, India, Australia, and Germany. Her educational background is; Doctor of Philosophy (Ph.D. in Statistics), Master of Science (M.Sc in Applied Statistics), Master of Business Administration (MBA), PG Diploma (Industrial Mathematics), Bachelor of Science (B.Sc-Mathematics), Diploma in Classical Music. This rare combination of educational qualifications made her a multi-disciplinarian. It paved the path for her to become a researcher and a research consultant in various fields; Financial Markets, Medicine and Health Care, Education, Business, and more. She also researches on "Indigenous Knowledge of Sri Lanka and other countries". Dr. Samanthi is a member of; American Statistical Association (ASA), Institute of Applied Statistics, Sri Lanka (IASSL), and National Science Foundation (NSF), Sri Lanka. Also an Editorial board member of the American Journal of Theoretical and Applied Statistics (AJTAS), an Advisory member and Technical/ Scientific Conference Committee member of the Scientific and Technical Research Association (STRA) of the Eurasia Research. Most interestingly, she is not only a Scientist but also an Artist; a Violinist, Painter, Writer, Drama producer, and Actress. The membership magazine of the American Statistical Association, “AMSTATNEWS” also identified her uniqueness, wrote about her under the title, “What Does Samanthi Konarasinghe Like to Do When She is not being a Statistician”.



Keynote Speaker



Professor. Dr. (Mrs).Anindita Adhikary
Department of Management Studies,
Sikkim Manipal Institute of Technology (SMIT), India
Topic: Risk Management in Share Market: An Insight

Dr. Anindita Adhikary, MBA, Ph.D is currently working as a Professor in Department of Management Studies, Sikkim Manipal Institute of Technology, Sikkim, India. Graduated in Commerce (Hons) from the University of Gauhati, Assam, India, she was awarded Master Degree in Business Administration (MBA) by Tezpur Central University, Tezpur, Assam, India. [A Central University established by an Act of Parliament which was adjudged as Best Central University in the country by the Ministry of HRD, Govt. of India in the year 2016]. Dr. Adhikary earned her Doctorate in Faculty of Commerce in 2009 from the University of Gauhati, Assam, India and has 21 years of professional experience in academics and corporate sector. She has more than 68+ research papers (select publications in Scopus) to her credit and attended magnificent conferences held in various parts of the globe. Scholars are pursuing / accomplished Doctoral Projects under her direct supervision. Dr. Adhikary had participated in 33 professional workshops and served as a Guest Faculty at different conventions organized time to time for Civil Servants, Govt. Officials and Personnel from supporting institutions. She had been a speaker as well at diverse programmes organized by the Ministry of MSME, Govt. of India. Dr. Adhikary was also invited as a Doctoral Programme (Ph.D Evaluation) Examiner for Sikkim Central University, Gangtok, India during Aug, 2021. Dr. Adhikary had facilitated/coordinated different MDPs/FDPs along with Symposia/Camps held at regular intervals. She got an opportunity to be an External Examiner for Sikkim (Central) University, Sikkim, India and was a Resource Person at National Level Training Programme on “Managing Finance for Improving Organizational Performance and Corporate Social Responsibility” conducted by National Productivity Council, Ministry of Commerce and Industry, Govt. of India, held at Gangtok, Sikkim during June 06-10, 2016. She also delivered talk at an Orientation Programme on Export and Import via Nathula Pass organized by the Department of Commerce and Industries, Govt. of Sikkim in collaboration with Small Industries Service Institute, Govt. of India.

Dr. Adhikary is in Editorial Board– International Journal of Arts, Humanities & Management Studies and International Journal of Multidisciplinary Approach & Studies, Orbit Publication, India, Research Journal of Accounting & Finance, Research Journal of Banking & Financial Institution, Research Journal of Management & Business and Research Journal of Management, Liispring Publication, India. She happens to be a Reviewer for Asian Research Journal of Arts & Social Sciences and Journal of Scientific Research and Reports, UK (indexed in Publons, a part of Web of Science Group), Research in Business and Management Journal, Issues in Business Management and Economics, International Journal of Education Policy Research and Review, Issues in Scientific Research-Egypt and International Journal of Asian Business and Information Management-IGI-Global-USA. At the moment, she is an Editorial Board Member of Horizon Research Publishing Corporation–USA and Journal of New Frontiers in Economics and Business, Sri Lanka.

Dr. Adhikary has been abroad a number of times in order to have an enriched exposure at international level and delivered a Special Talk at “Institute of Mathematics and Management Conference on Management & Social Sciences-2020” held (on-line) at Victoria University, Sunshine Convention Centre, Melbourne, Australia during Dec, 2020. She claimed a Best Paper Award in “International Conference on Global Trends in Management, Economics, Commerce and Legal Studies, Thailand-2018” held at Asian Institute of Technology, Bangkok, Thailand, during Nov, 2018. She was a Scientific Committee Member at “4th Annual International Conference on Marketing (ICOM-2016)” held in Bangkok, Thailand, during May, 2016. She presently holds membership of reputed global forums namely, EBES-Turkey and IACSIT-Singapore. Her area of interest includes Accounting, Finance and International Trade.



Scientific Forecasting on Economic Policy Development

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ABSTRACT

Economics is a social science concerned with the production, distribution, and consumption of goods and services. It studies how individuals, businesses, governments, and nations make choices about how to allocate resources. Macroeconomics and Microeconomics are the two main branches of economics. Macroeconomics Studies economy-wide phenomena such as; Inflation, Price levels, Rate of economic growth, National income, Gross domestic product (GDP), Unemployment whilst microeconomics studies the decisions of individuals and firms to allocate resources of production, exchange, and consumption. An economic policy is a course of action that is intended to influence or control the behavior of the economy. Economic policies are typically implemented and administered by the government. A country's economic policy consists of two components; Fiscal policy & Monetary policy. Fiscal policy is the means by which a government adjusts its spending levels and tax rates to monitor and influence a nation's economy. Monetary policy refers to the actions undertaken by a nation's central bank to control money supply and achieve macroeconomic goals that promote sustainable economic growth. It aimed at controlling; inflation, consumption, growth, and liquidity. Hence accurate and reliable forecast of economic variables are immensely important. It could be achieved by scientific forecasting. Scientific forecasting is based on "Mathematical Modeling". A mathematical model is a simplification of a real world situation into an equation or a set of equations. Among the types of mathematical models, "Stochastic Models" are more prominent in forecasting due to the capability of capturing the uncertainty in real life. Therefore conducting model base analysis on forecasting macroeconomic variables and developing new forecasting techniques would be light houses to economic policy developers.

Keywords: Scientific Forecasting, Economic Policy Development



Risk Management in Share Market: An Insight

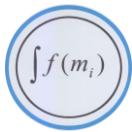
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ABSTRACT

The world has witnessed unprecedented volatility in share market over the past decade. The share market reaction to the novel Covid-19 is even more extraordinary in comparison to preceding pandemics in 1929, 1987 and 2008. The market has been very unpredictable and it has not generated significant positive returns. This has produced severe challenges for investors in yielding attractive investment returns while managing volatility to adequate level. Volatility in share market cannot be controlled. An investor looks for a reasonable rate of return at an acceptable level of risk. So, he should act differently and concentrate more on portfolio risk management rather than return generation. A good return is likely to crop up with effective risk management. Thus, a blend of various risk management tools may facilitate to defeat noteworthy losses.



The Potential of Semantic Mapping to Develop the Vocabulary of Second Language Learners

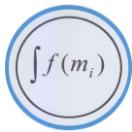
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ABSTRACT

Semantic maps are perceived as an effective strategy to learn vocabulary because they present the learners with a mechanism to organize the prior knowledge with the new knowledge in diagram form providing a simple syntax to interpret meaning. This study devoted to investigate if semantic maps could effectively be utilized during reading lessons in adult second language learning context to promote the acquisition of words and to retain those in memory compared to the conventional glossaries or word lists. Since limited vocabulary often negatively impacts on the academic performance, there was a need to identify a method to stimulate the learners to focus on words, understand those and to add those to the existing repertoire. 143 first year undergraduates of the Faculty of Technology participated in this research during the reading sessions for five months by creating five semantic maps as collaborative tasks and three semantic maps as individual tasks. They initiated the map using prior knowledge in one colour at the Pre-reading phase, added branches to the map in another colour with the fresh knowledge at the while-reading phase and produced a paragraph in their own words based on the map at the post -reading stage. Further, they also filled the blanks of a summary which focused the key words from each passage one or two days after the lesson. A questionnaire was circulated among the participants to obtain their views over the experience, and the findings revealed that learners perceived semantic mapping to be effective in vocabulary development.

Keywords: Semantic Maps, Prior Knowledge, Mental Lexicon, Schema



Women's Economic Empowerment in Australia

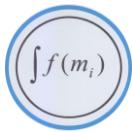
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ABSTRACT

Economic empowerment is the ability to make and act on decisions that involve the control over and allocation of financial resources. It allows individuals to participate in, contribute to and benefit from growth processes in ways that recognize the value of their contributions, respect their dignity and make it possible to negotiate a fairer distribution of the benefits of growth. Economic empowerment of women comprises two inter-related components; Economic advancement, Power and Agency. Economic gain and success promotes power and agency whilst ability of control and share the resource use and to define and make choices advance her economically. Economic empowerment of women is important to the society in various ways. It paves the path for them to achieve their rights and well-being. Economically empowered women contribute to the; economy of the family, health care of family members, education of children and more. Throughout the world, women and girls bear most of the burden of unpaid household and care work. According to the literature, women have fewer opportunities than men in their access to; job market opportunities, choice of occupation and wages. Yet it is believed that the economic empowerment of women in developing countries differ from developed countries, therefore it was intended to test whether the gender inequalities exist in Australian labor market. Unemployment data from January 2000 to November 2019 obtained from Australian bureau of Statistics. The descriptive statistics revealed that the mean and median unemployment rate of females is less than that of males. Inferential statistics generalized the same for the population. It was concluded that the female unemployment in Australian labor market is less than the male unemployment. It evidenced for the non-existence of gender disparities in economic empowerment in Australian labor market. It is recommended to test the economic empowerment of women from the points of view of choice of occupation and wages as well. It is essential to conduct similar studies for developing countries.

Keywords: Economic Empowerment, Gender Inequalities



Students University Choice: A Literature Review on Models and Factors Influencing for University Choice

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ABSTRACT

Recently, many researchers have found that education systems in many nations are very comprehensive and competitive. They revealed that the ultimate goal of growing number of universities is to increase the number of students' enrolment as much as possible. In students' perspective, they also consider different factors when they make their higher education decision. Therefore, this article aims to investigate the factors affecting for students' university choice. Relevant literature reviews explained in terms of four models which link to students' university choice process: economic model, sociological model, combined complex decision model and the marketing mixed model. Then, the study investigated the other main factors that are affecting to the university choice of students from empirical evidence. Finally, the study made an approach of introducing a suitable conceptual framework including models and other choice drivers. This conceptual framework will be benefited for university recruitment managers for their decision making process.

Keywords: Higher Education, University Choice, Conceptual Framework



Modeling Consumer Price Index in the USA under the COVID -19 Pandemic

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ABSTRACT

The Consumer Price Index (CPI) is a statistical composite indicator that measures the average change in prices over time that consumers pay for a basket of goods and services. The prices of goods and services are often changed due to the varied dynamic situations within the country. It depends on the effectiveness of economic policies and various other factors including natural disasters. There is an increasing trend of CPI in the USA. It shows an exponential growth behavior within the COVID-19 pandemic situation. It is very important to examine the future behavior of the CPI of the country under this situation. The objective of the study was to forecast CPI in the USA. The results of the study will be a lighthouse for revise or impose monitory and fiscal policies in the country. The monthly CPI data obtain from the International Monitory Fund (IMF) database for the period of January 2010 to August 2020. Auto-Correlation Functions (ACF) and Time Series Plots were used for pattern recognition of the data set. The model validation was done by using the Anderson Darling test, ACF, and Ljung-Box Q (LBQ)-test. The forecasting ability of the model was assessed by both relative and absolute measurements of errors. Linear and nonlinear trend models and Double Exponential Smoothing (DES) has been selected based on the behavior of the data series. The results of the study revealed that all four linear and nonlinear trend models do not satisfy the model validation criterion. DES was run after the trend models. The model DES satisfied the model validation criterion. The model was best fitted for Level (α) = 1.5 and Trend (γ) = 0.025. Both relative and absolute measurements of errors were very low under the fitting and verification. It has been concluded that DES is a suitable model to forecast CPI in the USA. According the ACF of the data series, there could be some seasonal and cyclical behavior in CPI. Hence, it is recommended to capture such behaviors to gain optimum benefits to the USA.

Keywords: Consumer Price Index, Monitory, Fiscal, COVID-19, DES